



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/515,766

03/01/2000

Heino Hamelers

34648/00439USPX

2696

27045

7590

06/15/2004

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER

ODLAND, DAVID E

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 06/15/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/515,766

Applicant(s)

HAMELEERS ET AL.

Examiner

David Odland

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-15 and 18-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-15 and 18-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendments filed on 05/27/2003.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 3 and 5-13 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, the claim 1 recites that "...each base transceiver station is directly connected to the interface..." in lines 17 and 18. The specification does not adequately describe the base transceiver stations all being directly coupled to the interface in such a manner that would convey that the inventor had possession of the claimed invention at the time of filing.

Claims 3 and 5-13 are rejected because they depend on rejected claims.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Art Unit: 2662

5. Claims 1,3,5-15 and 18-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 14 recite, "...the first and the second layer of the cellular telephone network..." in lines 8 and 9. This limitation is confusing because the claim earlier recites that the communications network (as a whole) comprises the first and second layer and so these layers are not specific to the cellular telephone network (see the preamble of the claim).

Claims 3,5-13, 15 and 18-31 are also rejected because they depend on rejected base claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 14,15 and 18-21, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Barany et al. (USPN 6,434,140), hereafter referred to as Barany.

Referring to claim 14, Barany discloses a method for operating a communication network having a packet switched protocol based cellular telephone network (a communications system comprising radio packet communications network comprising mobile stations, bases stations and mobile switching centers (see items 401,402,403,407,408 of Figure 4)) comprising a first layer

Art Unit: 2662

for transferring signaling information assigned to a telephone call being processed by the communication network (the communications system comprises elements that handle signaling information (see items labeled G-MSC 403, line A, line Gs', BSSX 402 and the SGSN of Figure 4)), a second layer for transferring payload information assigned to the telephone call (the communications system also comprises elements that handle payload data (see items labeled BSSx, BSSy, G-MSC 403, Line IMT, and media and PSTN Gateways 413 and 412 of Figure 4)) and interface means for coupling the cellular telephone network to a further network (an interface that connects the cellular system to other networks such as IP network 414, SS7 network 418 and PSTN 419 (see the SGSN and GGSN of the GPRS network 406 and the media gateway 413 of the PSTN gateway 412, which in combination act as an interface for the mobile stations to reach the other networks when either voice or data calls are placed by the mobile stations)), the interface means comprising signaling information exchange function between the cellular telephone network and the further network (the interface sends signaling messages from the mobile network to the other networks (see G-MSC 403, line GS' and the SGN and GGSN of item 406 in Figure 4)) and payload information exchange function between the cellular telephone network and the further network (the interface also sends payload information from the cellular network to the other networks (see the path following G-MSC 403, line IMT, Media Gateway 413, line Gs'IP, network 406 and also the path following 407,408,406 in Figure 4)), the first layer and the second layer of the cellular telephone network being coupled to the interface means (all of the first and second layer elements are connected to the interface (see figure 4));

the method comprising transferring the payload information of the telephone call to and from the interface means on a direct route through the second layer (the BSSy directly transfers payload information to the SGSN (see figure 4)).

Referring to claim 15, Barany discloses the system discussed above. Furthermore, Barany discloses that after initializing the telephone call, in a base transceiver station of the second layer which is assigned to said call, a base transceiver station (BTS) address is generated and forwarded via the first layer of the cellular telephone network to the interface means (the BSSx transfers signaling information toward the PSTN Gateway and/or the SGSN for processing the call of mobile stations MSx and MSy (note, inherently communications between the mobile and BSS must includes its address since communications between them must take place) (see figure 4)) and interface address information or media gateway address information is generated in the interface means (the interface generates addresses in order for the calls of MSx and MSy to take place to and from the other networks (see figure 4)) and forwarded via the first layer of the cellular telephone network to the base transceiver station for establishing a direct connection through the second layer between the base transceiver station (the interface transfers signaling information, which comprises address information, to the mobile stations through layer first elements such as link A and link Gs' and transfers payload information to the mobile stations through second layer elements such as link IMT and link T1 (see figure 4)) and the interface means to allow direct data, payload and call information exchange between the interface means and the base transceiver station and vice versa (payload and signaling are transferred through the interface to the base stations (se figure 4)), wherein at least one mobile services switching center is provided within the first layer of the cellular telephone network (the system includes a G-MSC

Art Unit: 2662

(see item 403 of figure 4)) and the method providing an MSC device control protocol for signaling information exchange between the MSC and the interface means (the G-MSC communicates with the PSTN Gateway 412 and the SGSN of the interface (see figure 4)), wherein at least one base transceiver station of the second layer is provided (the second layer comprises a base station (see BSSy of figure 4)), wherein each said base transceiver station handles the radio link protocol functions to mobile stations within an assigned cell area (the base station handle protocols for communicating with the mobile stations (see figure 4)), the method providing a payload protocol function for direct payload information exchange between each base transceiver and the interface means via the second layer of the cellular telephone network (BSSy 408 is directly coupled to the SGSN part of the interface and is used for payload exchange (see figure 4)).

Referring to claims 18 and 20, Barany discloses the system discussed above, Furthermore, Barany discloses a signaling gateway for signaling information exchange between the cellular telephone network and the further network and wherein the mobile services switching center is connected to the signaling gateway to exchange signaling information between the signaling gateway and the mobile services switching center (the 'call agent' of the PSTN Gateway 412 and the SGSN, which are both part of the interface, are connected to the G-MSC 403 for signaling information exchange (see Figure 4)).

Referring to claim 19, Barany discloses the system discussed above. Furthermore, Barany discloses that the first layer comprises at least one mobile services switching center being coupled to the interface means for signaling information exchange (the MSC is coupled to the interface for signaling exchange (see figure 4)).

Art Unit: 2662

Referring to claim 21, Barany discloses the system discussed above. Furthermore, Barany discloses that the first layer of the cellular telephone network comprises at least one mobile services switching center and a least one base station controller coupled to a number of base transceiver stations of the second layer and being connected to the mobile services switching center, the method providing a device control protocol function to be established between the base station controller and each of the base transceivers for controlling of the base transceiver stations and the information exchange between the base station controller and the base transceiver stations, and the method providing an application signaling protocol function to be established between the base station controller and the mobile services switching center (the Barany reference utilizes the GSM standard and since all of the limitations of claim 21 describe the basic GSM network set-up according to the standard, Barany anticipates claim 21 (see column 2 lines 5-17)).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1,3 and 5-13, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Barany.

Referring to claim 1, Barany discloses a communication network having a packet switched protocol based cellular telephone network (a communications system comprising radio

Art Unit: 2662

packet communications network comprising mobile stations, bases stations and mobile switching centers (see items 401,402,403,407,408 of Figure 4)) comprising a first layer for transferring signaling information assigned to a telephone call being processed by the communication network (the communications system comprises elements that handle signaling information (see items labeled G-MSC 403, line A, line Gs', BSSX 402 and the SGSN of Figure 4)), a second layer for transferring payload information assigned to the telephone call (the communications system also comprises elements that handle payload data (see items labeled BSSx, BSSy, G-MSC 403, Line IMT, and media and PSTN Gateways 413 and 412 of Figure 4)) and interface means for coupling the cellular telephone network to a further network (an interface that connects the cellular system to other networks such as IP network 414, SS7 network 418 and PSTN 419 (see the SGSN and GGSN of the GPRS network 406 and the media gateway 413 of the PSTN gateway 412, which in combination act as an interface for the mobile stations to reach the other networks when either voice or data calls are placed by the mobile stations)), the interface means comprising signaling information exchange function between the cellular telephone network and the further network (the interface sends signaling messages from the mobile network to the other networks (see G-MSC 403, line GS' and the SGN and GGSN of item 406 in Figure 4)) and payload information exchange function between the cellular telephone network and the further network (the interface also sends payload information from the cellular network to the other networks (see the path following G-MSC 403, line IMT, Media Gateway 413, line Gs'IP, network 406 and also the path following 407,408,406 in Figure 4)), the first layer and the second layer of the cellular telephone network being coupled to the interface means (all of the first and second layer elements are connected to the interface (see figure 4)), wherein

Art Unit: 2662

the second layer of the cellular telephone network transfers the payload information of the telephone call to and from the interface means on a direct route assigned to the telephone call within the second layer (the BSSy directly transfers payload information to the SGSN (see figure 4)), wherein the first layer of the cellular telephone network comprises at least one mobile services switching center being coupled to the interface means (an MSC is coupled to the interface (see item 403 of figure 4)) and wherein the second layer of the cellular telephone network comprises a number of base transceiver stations (the second layer comprises base stations (see BSSx and BSSy of figure 4)) each base transceiver station handling the radio link protocol functions to mobile stations within a cell area assigned to the respective base transceiver station (the base stations handle protocols for communicating with the mobile stations (see figure 4)) and wherein the base transceiver station being directly connected to the interface means for payload information exchange within the second layer (BSSy 408 is directly coupled to the SGSN of the interface for payload exchange (see figure 4)).

Barany does not disclose that each base station transceiver is directly connected to the interface. However, it would have been obvious to one skilled in the art at the time of the invention to implement this feature into Barany because doing so would make the system operate faster and conserve resources. Namely, if base station BSSx was also directly connected to the interface then BSSx could directly communicate with the interface rather than having to communicate with the interface through the BSSy and therefore the communication would take place faster and reserve the resources of base station BSSy (see figure 4). Furthermore, Barany only shows a single base station (i.e. BSSy) connected to the interface (see figure 4), which can severely hamper the number of subscribers the base station serves. It would have been obvious to one

Art Unit: 2662

skilled in the art at the time of the invention to have a plurality of base stations connected directly to the interface in the Barany system because doing so would allow the system to serve more mobile subscribers, thereby making the system more robust and flexible.

Note, the 'first layer' as recited in the claim corresponds to the G-MSC 403, line A, Line Gs', BSSx and SGSN of Barany (see Figure 4), since these elements process signaling signals. Also, note that these are not the only elements of Barany that process such signals.

Note, the 'second layer' as recited in the claim corresponds to the BSSx, BSSy, G-MSC 403, Line IMT, and media and PSTN Gateways 413 and 412 of Barany (see Figure 4), since these elements process payload signals. Also, note that these are not the only elements of Barany that process such signals.

Note, that the interface means as recited in the claim correspond to the SGSN and GGSN of the GPRS network 406 and the media gateway 413 of the PSTN gateway 412, which in combination act as an interface for the mobile stations to reach the other networks when either voice or data calls are placed by the mobile stations.

Referring to claim 3, Barany discloses the system discussed above. Furthermore, Barany discloses that the interface means comprises media gateway means for payload information exchange between the cellular telephone network and the further network (the interface comprises a gateway for payload information transferred between the mobile stations and the other networks (see figure 4)) and to be coupled directly to the base transceiver stations (the base stations are connected to the interface (see figure 4)).

Referring to claim 5, Barany discloses the system discussed above. Furthermore, Barany discloses that the interface means comprises media gateway means for payload information

Art Unit: 2662

exchange between the cellular telephone network part and the further network (the interface comprises a gateway for payload information transferred between the mobile stations and the other networks (see figure 4)) and wherein the mobile services switching center is connected to a media gateway of the interface means to control the media gateway (the MSC is connected to the Media gateways (see figure 4)).

Referring to claim 6, Barany discloses the system discussed above. Furthermore, Barany discloses that the first layer comprises at least one mobile services switching center being coupled to the interface means for signaling information exchange (the MSC is coupled to the interface for signaling exchange (see figure 4)).

Referring to claim 7, Barany discloses the system discussed above, Furthermore, Barany discloses a signaling gateway for signaling information exchange between the cellular telephone network and the further network and wherein the mobile services switching center is connected to the signaling gateway to exchange signaling information between the signaling gateway and the mobile services switching center (the 'call agent' of the PSTN Gateway 412 and the SGSN, which are both part of the interface, are connected to the G-MSC 403 for signaling information exchange (see Figure 4)).

Referring to claim 8, Barany discloses the system discussed above. Furthermore, Barany discloses that the first layer of the cellular telephone network comprises at least one mobile services switching' center and at least one base station controller being coupled to a number of base transceiver stations of the second layer (the MSC is coupled and being connected to at least one mobile services switching center wherein the base station controller controls each of the base transceiver stations by means of a device control protocol function and communicates to the

Art Unit: 2662

mobile services switching center by means of an application signaling protocol function (see figure 4)).

Referring to claim 9, Barany discloses the system discussed above. Furthermore, Barany discloses that the cellular telephone network part is a GSM network (the mobile network (GPRS-136) is part of the GSM network (see figure 4 and column 2 lines 9-17)).

Referring to claim 10, Barany discloses the system discussed above. Furthermore, Barany discloses that the further network is a packet switched network (the further network is the an IP network, which is packet switched (see item 414 of Figure 4)).

Referring to claim 11, Barany discloses the system discussed above. Furthermore, Barany discloses that the packet switched network is the Internet, a VoIP network, an Internet Protocol network, a GPRS network or a UMTS network (the packet switched network is an IP network (see item 414 of Figure 4)).

Referring to claim 12, Barany discloses the system discussed above. Furthermore, Barany discloses that the further network is a circuit switched network (the further network can also be considered the PSTN, which is circuit-switched (see item 419 in Figure 4)).

Referring to claim 13, Barany discloses the system discussed above. Furthermore, Barany discloses that the circuit switched network is an ISDN, PLNM or PSTN network (the circuit-switched network is the PSTN (see item 419 of Figure 4)).

10. Claims 22-31, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Barany in view of Alperovich et al. (USPN 5,940,763), hereafter referred to as Alperovich.

Art Unit: 2662

Referring to claims 22 and 23, Barany discloses the system discussed above. Barany does not disclose that after a new call is initiated call identification information is generated and stored in the MSC and sent to the base station controller and forwarded on to the base station. However, Alperovich discloses that after initiating a new call by a mobile station, a call identification information being assigned to the new call is generated and stored within the mobile services switching center (the mobile station originates a call wherein TCH channel information is determined by the MSC (see figure 4 and column 6 line 33 through column 7 line 16)), then the call identification information is sent by the application signaling protocol function from the mobile services switching center to the base station controller (the MSC responds with an assignment request signal that is sent to the BSC (see column 6 line 33 through column 7 line 16 and figure 4)) and the call identification information from the mobile services switching center is stored within the base station controller and a corresponding request is forwarded to a base transceiver station by means of the device control protocol function being established between the base station controller and the base transceiver station (the BSC notes the TCH channel described in the assignment request signal and forwards an assignment command signal to the base station, letting the base station know what the assigned TCH channel is (see column 6 line 33 through column 7 line 16 and figure 4)). It would have been obvious to one skilled in the art at the time of the invention to perform such operations disclosed in Alperovich, in the system of Barany, because doing so would provide the mobile unit with a signaling channel which can be used for proper communication with the rest of the network, thereby making Barany more reliable.

Art Unit: 2662

Referring to claim 24, Barany discloses the system discussed above. Furthermore, Barany discloses that the base station exchanges payload information between itself and the media gateway (the base stations communicate payload information to the interface with comprises media gateways and is considered second layer because it communicates payload information (see figure 4)). Barany does not disclose that after receiving the call identification information from the base station controller, base transceiver station (BTS) address information is generated in the base transceiver station, the base transceiver station (BTS) address information identifies the base transceiver station being assigned to the call and the call within the base transceiver station. However, it would have been obvious to one skilled in the art at the time of the invention to generate and forward the media gateway address back to the mobile station because doing so will allow the mobile station to properly and quickly address the data it needs to send to the gateway, thereby making the system operate faster.

Referring to claim 25, Barany discloses the system discussed above. Furthermore, Barany discloses that the generated base transceiver station (BTS) address information is forwarded to the base station controller (the system uses the GSM standard for communication and the standard dictates that the BSC needs to know the address of the base station since it controls the base station (see figure 4)).

Referring to claim 26 and 27, Barany discloses the system discussed above. Barany does not disclose that the call identification information from the base station controller is stored in the base transceiver station, the base transceiver station address information is sent to the MSC from the BSC, or the call identification and base transceiver address information is stored in the MSC. However, Alperovich discloses that the call identification information from the base

Art Unit: 2662

station controller is stored in the base transceiver station (the assignment command signal from the BSC tells the base station what the TCH channel so the base station uses this to set up the call and thus must store this information for the call to take place (see figure 4 and column 6 line 33 through column 7 line 16)) and after receiving the base transceiver station (BTS) address information from the base transceiver station the base transceiver station (BTS) address information is forwarded to the mobile services switching center from the base station controller (the base station identity code is forwarded to the MSC (see column 7 line 4)). It would have been obvious to one skilled in the art at the time of the invention to perform such operations taught by Alperovich, in the system of Barany, because doing so would provide the mobile unit with a signaling channel which can be used for proper communication with the rest of the network.

Referring to claim 28, Barany discloses the system discussed above. Barany does not specifically disclose that after requesting a connection from the media gateway the call identification and the base transceiver station (BTS) address information are sent to the media gateway utilizing the mobile services switching center (MSC) device control protocol function. However, it would have been obvious to one skilled in the art at the time of the invention to send such information to the gateway in the system of Barany because doing so will allow the gateway to properly and quickly address the data it needs to send to the mobile station.

Referring to claim 29, Barany discloses the system discussed above. Furthermore, Barany discloses that a request for through-connection is sent from the mobile services switching center to the media gateway by means of the mobile services switching center (MSC) device

Art Unit: 2662

control protocol function (inherently, a request is sent to the gateway in order to set-up the connection with the mobile station and this is done using a protocol (see figure 4)).

Referring to claim 30, Barany discloses the system discussed above. Furthermore, Barany discloses that the media gateway address information, which identifies the media gateway, is forwarded back to the mobile services switching center by means of the mobile services switching center (MSC) device control protocol (the MSC knows where the gateways are since it communicates with the gateways, thus the address information must be communicated (see figure 4)).

Referring to claim 31, Barany discloses the system discussed above. Barany does not disclose that after receiving the media gateway address information from the media gateway the media gateway address information is forwarded from the mobile services switching center via the base station controller to the base transceiver station for establishing a through-connection between the media gateway and the base transceiver station on the basis of the BTS information and the media gateway address information in order to permit direct exchange of information between the media gateway and the base transceiver station and vice versa. However, it would have been obvious to one skilled in the art at the time of the invention to perform such operations because doing so would allow the base station of Barany to know where the gateway is and thus allow it to properly and correctly address the data it needs to send to the gateway.

Response to Arguments

11. Applicant's arguments filed 05/27/2004 have been fully considered but they are not persuasive.

Specifically, the Applicant argues on pages 10 and 11 with respect to the 35 USC 112 second paragraph rejection, that the Examiner has misread the claim and that the first and second layers are part of the packet switched protocol based cellular communications network and not part of the communications network as a whole. However, as currently written the claim can be interpreted as having a communications network, as a whole, comprise the first and second layers *or* the packet switched protocol based cellular communications network as comprising the first and second layers. Therefore, this dual interpretation continues to render the claim indefinite since it is not distinctly claimed whether the communications network or the cellular network comprise the first and second layers.

Furthermore, the Applicant argues on page 12 with respect to claim 1 that the Barany reference does not teach the applicants invention because it does not disclose payload information is sent directly from the base station to the interface. The Examiner respectfully disagrees because this is not a limitation of the claim. The claim merely recites that the payload is directly routed to the interface by the *second layer* and does not particular recite that the base station is directly sending the payload. Furthermore, assuming *arguendo* and the claim did recite such a limitation, Barany clearly shows that base station BSSY directly sends payload information to the SGSN which is part of the interface to the further IP network and so indeed the rejection is proper.

Also, on page 13 first paragraph the Applicant argues that Barany fails to anticipate claim 1 because in the Applicant's invention signaling and payload information for a single call are split into different paths. The Examiner respectfully disagrees. Claim one does not recite that the signaling and payload information of a single call are 'split into different paths'.

Art Unit: 2662

Furthermore, assuming *arguendo* and the claim did recite such a limitation, Barany shows that the payload and signaling of a call are split into different paths, wherein payload travels over the path labeled 'T1' and signaling travels over the path 'A' (see figure 4). Furthermore, the Applicant asserts that the Examiner has not distinguished between two networks (CS and PS) and two layers within one cellular network. The Examiner contests such as assertion. There is nothing in recited the claim that would require the Examiner to make such a distinction and furthermore the Examiner has not made any suggestion that the CS and PS of Barany correspond to the first and second layers of the present invention. Conversely, the Examiner has distinctly pointed out what aspects of Barany correspond to the first layer, the second layer and the interface means. Namely, the 'first layer' as recited in the claim corresponds to the G-MSC 403, line A, Line Gs', BSSx and SGSN of Barany (see Figure 4), since these elements process signaling signals. Also, note that these are not the only elements of Barany that process such signals. The 'second layer' as recited in the claim corresponds to the BSSx, BSSy, G-MSC 403, Line IMT, and media and PSTN Gateways 413 and 412 of Barany (see Figure 4), since these elements process payload signals. Also, note that these are not the only elements of Barany that process such signals. The interface means as recited in the claim correspond to the SGSN and GGSN of the GPRS network 406 and the media gateway 413 of the PSTN gateway 412, which in combination act as an interface for the mobile stations to reach the other networks when either voice or data calls are placed by the mobile stations.

Lastly, on page 13 second paragraph the Applicant argues that claim 14 includes analogous limitations as claim 1 and for the same reasons Barany does not disclose the Applicant's invention. The Examiner respectfully disagrees. Firstly, for the same reasons

Art Unit: 2662

discussed above Barany does indeed disclose the claimed invention. Also, since claim 1 was amended claim 14 does not currently include the same limitations as claim 1 since it does not recite that “each base transceiver station is directly connected to the interface”. Furthermore, the Applicant is reminded that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Thus as currently written, claim 14 is merely a “...method comprising transferring the payload information of the telephone call to and from the interface means via a direct route through the second layer.” (see lines 10-12 of claim 14). Since Barany discloses that base station BSSY directly sends payload information to the SGSN which is part of the interface, Barany clearly anticipates the limitations of claim 14 that are given patentable weight (i.e. the limitations in the preamble are not given patentable weight and thus the Applicant’s arguments made with respect to claim 1 are not necessarily applicable to claim 14).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.


Art Unit: 2662

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

June 12, 2004



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600